Appl. No. 10/686,944

Amdt. Dated: November 30, 2004

Reply to Office action of August 31, 2004

## AMENDMENTS TO THE SPECIFICATION:

Please replace paragraphs 0047 and 0153 with the following amended paragraph(s). These amendments to the specification simply render browser executable links non-executable, and present no new matter.

[0001] For enzymatic saccharide syntheses that involve glycosyltransferase reactions, the recombinant cells of the invention optionally contain at least one heterologous gene that encodes a glycosyltransferase. Many glycosyltransferases are known, as are their polynucleotide sequences. See, e.g., "The WWW Guide To Cloned Glycosyltransferases," (available on the World Wide Web at <a href="vei.co.uk">vei.co.uk</a> forward slash TGN forward slash gt guide(dot)htm <a href="www.vei.co.uk/TGN/gt\_guide.htm">www.vei.co.uk/TGN/gt\_guide.htm</a>). Glycosyltransferase amino acid sequences and nucleotide sequences encoding glycosyltransferases from which the amino acid sequences can be deduced are also found in various publicly available databases, including GenBank, Swiss-Prot, EMBL, and others.

[0002] A variety of methods are available for producing novel enzymes for use in biosynthetic pathways or for evolution of existing pathways. For example, recursive recombination, e.g., as developed by Maxygen, Inc. (on the world wide web at maxygen(dot)com. at www.maxygen.com), is optionally used to develop novel enzymes and pathways. See, e.g., Stemmer 1994, "Rapid evolution of a protein in vitro by DNA shuffling," Nature Vol. 370 No. 4: Pg. 389-391; and Stemmer, 1994, "DNA shuffling by random fragmentation and reassembly: In vitro recombination for molecular evolution," Proc. Natl. Acad. Sci. USA. Vol. 91: Pg. 10747-10751. Similarly DesignPath<sup>TM</sup>, developed by Genencor (on the world wide web at genencor.com genencor(dot)com) is optionally used for metabolic pathway engineering, e.g., to engineer a pathway to create an unnatural amino acid in E coli. This technology reconstructs existing pathways in host organisms using a combination of new genes, e.g., identified through functional genomics, and molecular evolution and design. Diversa Corporation (on the world wide web at diversa.com diversa(dot)com) also provides technology for rapidly screening libraries of genes and gene pathways, e.g., to create new pathways.